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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,000

06/07/2006

Shinichi Inoue

3273-0226PUS1

9234

2292 7590 03/11/2008
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EXAMINER

HEINCER, LIAM J

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

03/11/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/582,000	Applicant(s) INOUE ET AL.	
	Examiner Liam J. Heincer	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8-10, 15-17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Belt et al. (US Pat. 6,521,694).

Considering Claims 1, 15, and 19: Belt et al. teaches a latex (2:26-36) of a hydrogenated (1:11-16) natural rubber (2:15-19).

Considering Claims 2 and 8: Belt et al. teaches the hydrogenated natural rubber of claim 1. As the term elastic has not been explicitly defined and any rubber composition will have at least some degree of elasticity, the claim is considered met. Additionally, the phrasing “which is a resin modifier” is functional language that does not change the scope of the claim. See MPEP § 2111.02.

Considering Claims 3, 9, and 16: Belt et al. teaches hydrogenating the polymer in the presence of a catalyst (3:31-39) and a solvent (3:66-4:2) or latex (1:11-16).

Considering Claim 4, 10, and 17: Belt et al. teaches a degree of hydrogenation of at least 60% (3:51-58).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belt et al. (US Pat. 6,521,694) as applied to claim 2 and 8 above, and further in view of Sasagawa et al. (US 2003/0125475).

Considering Claims 5 and 11: Belt et al. teaches the article of claim 1 as shown above.

Belt et al. does not teach the claimed molecular weight. However, Sasagawa et al. teaches a hydrogenated polyisoprenoid (¶0021) with a weight average molecular weight of preferably 80,000 to 400,000 (¶0020). Belt et al. and Sasagawa et al. are combinable as they are concerned with the same field of endeavor, namely hydrogenated polyisoprene polymers. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the molecular weight of Sasagawa et al. in the article of Belt et al., and the motivation to do so would have been, as Sasagawa et al. suggests, to increase the tensile strength of the article (¶0020).

Belt et al. does not teach the claimed molecular weight distribution. However, Sasagawa et al. teaches a hydrogenated polyisoprenoid (¶0021) with a molecular weight distribution of preferably 1.85 to 4 (¶0020). It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the molecular weight distribution of Sasagawa et al. in the article of Belt et al., and the motivation to do so would have been, as Sasagawa et al. suggests, to provide a polymer with good processability (¶0020).

Claims 6 and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Belt et al. (US Pat. 6,521,694) as applied to claims 2 and 15 above, and further in view of Miller et al. (US Pat. 4,963,623).

Considering Claims 6 and 18: Belt et al. teaches the articles of claims 2 and 15.

Belt et al. does not teach the polyisoprene as coming from the claimed sources. However, Miller et al. teaches obtaining a polyisoprene (1:19-21) from *Havea Brasiliensis* (1:13-15). Belt et al. and Miller et al. are combinable as they are concerned with the same field of endeavor, namely polyisoprene latexes. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used the polyisoprene from *Havea Brasiliensis* in the article of Belt et al. as in Miller et al., and the motivation to do so would have been, as Miller et al. suggests, the high molecular weight of the polyisoprene (1:19-23).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasagawa et al. (US 2003/0125475) in view of Belt et al. (US Pat. 6,521,694) as evidenced by Miller et al. (US Pat. 4,963,623).

Considering Claims 7: Sasagawa et al. also teaches making a molded article from a resin composition (¶0041) comprising a hydrogenated polyisoprene (¶0021)

Sasagawa et al. does not teach the polyisoprene as being a natural rubber. However, Belt et al. teaches a hydrogenated natural rubber with improved stability (2:15-25). Sasagawa et al. and Belt et al. are combinable as they are concerned with the same field of endeavor, namely hydrogenated polyisoprene polymers. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the natural rubber of Belt et al. in the resin composition of Sasagawa et al., and the motivation to do so would have been, as Miller et al. suggests, the high molecular weight of the natural rubber (1:19-23) and the ability to use natural rubber latexes in processes without modification (1:13-17).

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasagawa et al. (US 2003/0125475) in view of Belt et al. (US Pat. 6,521,694) as evidenced by Miller et al. (US Pat. 4,963,623).

Considering Claims 12-14: Sasagawa et al. teaches a resin composition comprising a resin (¶0036) and a hydrogenated polyisoprene (¶0021) present in an amount from 0.1 to 100 parts by weight per 100 parts by weight of the resin (¶0036). Sasagawa et al. also teaches making a molded article from the resin composition (¶0041).

Sasagawa et al. does not teach the polyisoprene as being a natural rubber. However, Belt et al. teaches a hydrogenated natural rubber with improved stability (2:15-25). Sasagawa et al. and Belt et al. are combinable as they are concerned with the same field of endeavor, namely hydrogenated polyisoprene polymers. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the natural rubber of Belt et al. in the resin composition of Sasagawa et al., and the motivation to do so would have been, as Miller et al. suggests, the high molecular weight of the natural rubber (1:19-23) and the ability to use natural rubber latexes in processes without modification (1:13-17).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.

Response to Arguments

Applicant's arguments, see pages 6-9, filed December 20, 2007, with respect to the rejection(s) of claim(s) 1-19 under U.S.C § 102(b) and 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Belt et al., Sasagawa et al., and Miller et al..

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/
Supervisory Patent Examiner, Art Unit 1796
28-Feb-08

LJH
February 28, 2008